DuPont Crop Protection

MATRIX® HERBICIDE
EPA Reg. No. 352-556

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LOW RATE USE IN POTATOES - SOUTHWESTERN AND SOUTHCENTRAL IDAHO, MALHEUR COUNTY IN OREGON, AND HUMBOLDT AND ELKO COUNTIES IN NEVADA

GENERAL INFORMATION
DuPont™ MATRIX® Herbicide and MATRIX® Herbicide (MATRIX®) is a dry flowable formulation that selectively controls certain broadleaf weeds and grasses in potatoes. The best control is obtained when MATRIX® is applied to young, actively growing weeds. The degree and duration of control may depend on the weed spectrum and infestation intensity, the weed size at application and/or the environmental conditions at and following treatment.
MATRIX® is noncorrosive to equipment, nonflammable, and nonvolatile.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DIRECTIONS FOR USE
MATRIX® Herbicide when applied preemergence at 1/2 ounce per acre, will control Redroot Pigweed. When applied postemergence at 1/2 ounce per acre will control Redroot Pigweed, and partially control Wild Oat, Barnyardgrass and Green Foxtail in potatoes. This 1/2 ounce per acre rate is only recommended to supplement a standard potato herbicide program so as to improve overall weed control results. It is not designed to replace a full rate MATRIX® planned weed control program. This reduced rate is only recommended for use in southwestern and south central Idaho (including the counties of Ada, Canyon, Adams, Washington, Valley, Gem, Owyhee, Payette, Boise, Elmore, Gooding, Jerome, Lincoln, Camas, Twin Falls, Blair, Minidoka and Cassia) and in Malheur county in Oregon, and Humboldt and Elko counties of Nevada.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

PREEMERGENCE APPLICATIONS
For preemergence applications to control Redroot Pigweed apply MATRIX® at 1/2 ounce per acre, immediately after hoeing, drag-off, or reservoir tillage (dam/dike operation), to a clean, newly prepared seedbed.

To activate MATRIX® in the soil, supply moisture by a single rainfall event of 1/3 to 1", or apply sprinkler irrigation of 1/3 to 1" (sandy soils apply at least 1/3", sandy loams apply at least 1/2", silt soils apply at least 3/4", clay soils apply at least 1"), within 5 days after application, to move MATRIX® 2 to 3" deep into the soil profile. Activating moisture is required regardless of the soil moisture level at planting, or the cumulative precipitation that occurs over the next 5 days (unless rainfall occurs in a single event and equals the activation moisture requirement). If rainfall or sprinkler activation cannot be managed, waiting for weeds to emerge and applying MATRIX® postemergence will result in better weed control.

If a clean, newly prepared seedbed, free of emerged or germinating weeds is not feasible, and weeds are present at application, add a nonionic surfactant containing at least 80% active ingredient to the spray mix at 0.125 to 0.25% v/v (1 to 2 pt/100 gal of water). Control may not be adequate for weeds that have an established root system before rainfall or sprinkler activation of MATRIX®.

Preemergence applications can be made by ground or air.

POSTEMERGENCE APPLICATIONS
For postemergence applications, apply MATRIX® at 1/2 ounce per acre to young, actively growing weeds after crop emergence. Typically, small weeds (less than 1" in height or diameter) that...
are actively growing at application are most easily controlled. For control of Redroot Pigweed height should not exceed 3 inches. For partial control of Wild Oat, Barnyardgrass and Green Foxtail weed height should not exceed 2 inches or the 3-leaf stage.

Postemergence applications can be made by ground or by air.

**Adjuvants:**

Applications of DuPont™ MATRIX® Herbicide and MATRIX® Herbicide (MATRIX®) when applied by itself and postemergence to the weeds must include an adjuvant. Use either a Petroleum Crop Oil Concentrate (COC), Modified Seed Oil (MSO) or nonionic surfactant (NIS).

**Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)**

- Apply at 1%-volume/volume (1 gal per 100-gal spray solution).
- Methyldized seed oil (MSO) is the preferred adjuvant.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

**Nonionic Surfactant (NIS)**

- Apply at 0.125 to 0.25% v/v (1 to 2 pt/100 gal of water).
- The 0.25% v/v rate is preferred under arid or drought conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

**Ammonium Nitrogen Fertilizer**

- An ammonium nitrogen fertilizer can be used in addition to the adjuvant. Use 1 qt/acre of a high-quality urea ammonium nitrate (UAN), such as 28%-N or 32%-N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS).

**Precautions:**

1. The use of silicon polymer type surfactants is not suggested as reduced weed control may result.
2. Avoid using crop oil concentrate (COC) or methylated seed oil (MSO) when potatoes are under heat stress (>85 degrees F) as multiple stresses may cause crop injury.

**Tank Mixtures**

Read and follow all manufacturers label recommendations for the companion product. If these recommendations conflict with this MATRIX® label, do not use as a tank mix with MATRIX®.

**MATRIX® plus Metribuzin**

Apply a tank mix combination of MATRIX® at 1/2 ounce per acre and Metribuzin (such as "Sencor") at 1/4 to 2/3 lb per acre for improved weed control. Use a nonionic surfactant (NIS) at 0.125 % v/v (1 pt/100 gal of water). The addition of adjuvants to post emergence metribuzin applications may reduce crop tolerance. Adjuvants should be used with caution.

Avoid post emergence applications on metribuzin sensitive varieties, or if the crop is under stress. Read and follow the product label for your area.

Note: The use of crop oil concentrate (COC) or methylated seed oil (MSO) is not recommended for tank mix combinations with MATRIX® plus Metribuzin.

**MATRIX® plus “Eptam”**

Apply a tank mix combination of MATRIX® at 1/2 ounce per acre and “Eptam” before potatoes exceed 4-6” in height for improved weed control. Use a nonionic surfactant at 0.125% v/v (1 pt/100 gal of water) or methylated seed oil (MSO) at 1.0 %/V (1 gallon/100 gallons of water).

Read and follow the product label for your area.

**CROP ROTATION**

Sugarcane, alfalfa, and onions grown under irrigation can be planted 10 months after using 1/2 ounce per acre of MATRIX® herbicide on sprinkler irrigated potatoes. Applications to potatoes must be made prior to July 15th. Deep tillage using a moldboard plow is recommended to insure thorough mixing of the treated soil.

Rotation intervals need to be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless supplemental sprinkler irrigation has been applied and totals greater than 15” during the potato growing season. Injury to the sugarcane, alfalfa or onion crop may occur if less than 15 inches of sprinkler irrigation is used on the previous potato crop.

See the MATRIX® product label for rotational crop guidelines regarding other crops.

For tank mixtures, follow the most restrictive rotational crop guideline.

**IMPORTANT**

**BEFORE USING MATRIX® HERBICIDE, READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA-REGISTERED LABEL.**

This bulletin contains new or supplemental instructions for use of this product, which do not appear on the EPA-registered package label. Follow the instructions carefully. This labeling must be in the possession of the user at the time of pesticide application.

“Eptam” is a registered trademark of Syngenta Crop Protection
“Sencor” is a registered trademark of Bayer Crop Protection

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